

ABSTRACT OF THE DISCLOSURES

5 A method of maintaining photolithographic precision alignment for a
wafer after being bonded, wherein two cavities are formed at the rear surface of
a top wafer at the position corresponding to alignment marks made on a bottom
wafer. The depth of both cavities is deeper than that of a final membrane
structure. The top wafer is then bonded to the bottom wafer which already has
alignment marks and a microstructure. This bonded wafer is annealed to
10 intensify its bonding strength. After that, a thinning process is applied until the
thickness of the top wafer is reduced to thinner than the cavity depth such that
the alignment marks are emerged in the top wafer cavities thereby serving as
alignment marks for any exposure equipment.

(Fig. 10)